WOODALLS VIATICVM:

The path-way to the Surgions *Chest.*

CONTAINING

CHIRVRGICALL INSTRVCTIONS

For the yonger sort of *Surgions* now imployed in the service of His MAIESTIE for the intended reliefe of ROCHELL.

And Composed by *Iohn Woodall*, one of the present Masters or Governors of the Companie of *Barber Surgions* LONDON.

Intended chiefly for the better Curing of Wounds made by Gun-shott.

Publisshed by Authoritie.

Omnia Terrenæ per vices sunt Alienæ.

August 11. 1628.

Imprinted at *London*. 1628.

Printed at London 1623.

¶ THE PREFACE.

Oving Brethren, for as much as theſe times doe rather menace VVarre then Peace, men of our calling ſhould be readie *ad omne quare*, for our King and Country. Wee and our Country haue beene long happy in peace, and now it ſeemes the times preſage the contrary. Wherefore from the wiſe heathen Philoſopher, let vs all learne as followeth, *Iam tua res agitur pare cum proximus ardet.* I deſire in briefe, to let you know, that our Company were commanded by Authoritie, to provide ſixteene of the beſt Surgions at this time to be had for his Majeſties ſpeciall ſervice, ſuch as are men moſt expert in the healing of wounds made with Gun-ſhott. And generally, for the moſt part, I know many of vs that would be eſteemed good Surgions, being put to it, at the

first will be somewhat to seeke therein, how much more then our young men. Wherefore the matter of providing, preparing, and fitting his Majesties service, being by his Highnes referred to our Corporation. And our Company having for the time deputed my selfe to the worke. I am tyed in conscience to doe somewhat, though I confesse, it be little to the better inabling and incouraging our younger men vnto their duties in that point. But before my entrance thereunto, I could in my dutie doe no lesse then to acquaint you with those especiall favours which it hath pleased our gracious King to bestow vpon our Corporation in particular, aboue and beyond his ever-blessed Ancestors, for our incouragement, to enable vs the more chearefully to serue him. First, his Highnes hath beene pleased to augment the monethly wages of each Surgion and Surgions-mate in his Sea-service, almost to a third penny. He hath also beene graciously pleased to giue as free a benevolence to the Surgions in all his Sea-services, which never was given them before, as followeth, *viz.* to all Surgions that serue in his Highnes owne Ships, I meane towards

wards the furniſhing of the Surgions Cheſts, for each of them x^{l}. Vnto each Marchants Ship, imployed in his ſervice v^{l}. And to each New-caſtle Ship iij^{l}. And nevertheleſſe, his Highnes is well pleaſed that the Surgions may demand and take by the head of all men that are in pay in any of his Shipps ij^{d}. of each man by the moneth, as they did before. And for the Surgions in his Land-ſervice at preſent, he alloweth each Surgeon ij^{s}. vj^{d}. the day, which is iij^{l}. xv^{s}. the moneth, and to each mate iij^{l}. a moneth: And moreover, provideth, and giveth to each Surgion appointed to 250. men a Surgeons Cheſt of xvij^{l}. vallew, and over and aboue a Magazin or ſtore-cheſt of xlviij^{l}. vallew, for to ſupply and furniſh vpon all wants. His Highnes hath further beene well pleaſed to giue authoritie vnto the Maſters and Governors of our Societie, for to haue the making, compounding, fitting, and ordering of all the Medicines, as well Phyſicall as Chirurgicall; together with all other proviſions belonging to the Surgions Cheſt, he hath referred to the Maſters and Governors of our Societie. Theſe favours and priviledges our Corporation haue received from

his Highnes, together with his gracious favour and graunt vnto vs of a new Charter, wherein he hath likewiſe gratiouſly beene pleaſed to promiſe to confirme all our priviledges formerly graunted vnto vs, and to giue vs divers new priviledges for the better ſubſiſtance of our Corporation in future times.

And now having acquainted you with his Maieſties favours vnto our Corporation, it followeth in my dutie that I ſhould acquaint the younger ſort of Surgions with the vſe of the Surgions Cheſt, I meane the particular medicines therein contained, and that in ſome methodicall manner, were it not that time haſtens me to an end before I begin, yet nevertheleſſe I haue ſtrained of time to lend the younger ſort a word or two for a *Viaticum*, not to all as a teacher, but as a loving Remembrancer to the elder, which I pray you to peruſe, and vſe as you haue occaſion. And ſo in Gods name without painting of phraſes, or collecting of great Authors, my methode you may know by the plaineneſſe of the ſtile, and my methode is no other then the old beaten path-way of all Surgions, wherin each Artiſt ought to be vnderſtanding: And if any Artiſt

by

by forgetfulneſſe erre, I deſire but to informe his memory, and craue his charitable acceptance. And for the younger ſort, I know it is charitie to ſhew them, for they haue neede, and ought to deſire and ſeeke knowledge, according to an old doctrine of that ſweet *Lillie* in his Grammer rules, *viz.*

Qui dubitat, qui ſepe rogat mea dicta tenebit.
Is qui nil dubitat, nil capit inde boni.

I knowing you could not haue the learned adviſe of the graue Doctors at hand to adviſe you, made me preſume I confeſſe ſomewhat beyond my ſcope; Wherefore in want of the aforeſaid helpes, conſult with good Authors in their wants, with the Surgions mate, and this poore *Extempore*.

Vale.

The Preface.

A HELPE TO THE SVRGIONS Cheſt.

The firſt dreſſing of Wounds made with Gun-ſhott.

AFter extraction of vnnaturall things forced into the woũds with the Bullet, which ought with all circumſpection, care, and poſſible eaſe to the patient to be effected, for feare of hurting the offended Arteries, Veines, Nerues, &c. As alſo ſuch fractured bones greater or leſſe, broken by force of the Bullet be taken

Draw not fractured bones out at firſt without Caution.

out. I ſay of all ſuch of them as may without danger of life and limme be removed. For the firſt dreſſing, wherein note, that a fractured bone, though wholly divided from the greater fixed part thereof, is not as by a generall rule alwayes to be cut or forced out at the firſt dreſſing, except it doth apparantly indanger a *Gangrena*, or other fearefull accidents, by pricking of Nerues, and the like, but you ſhould doe well rather to forbeare ſuch bones for the firſt dreſſing at the leaſt and furtheſt, vntill either nature or other iuſt reaſons in the true art of healing offer the worke, and to the dreſſing as followeth. In the more ſimple ſort of Gun-ſhot wounds, as followeth. I meane in wounds where no *Gangrena* may be expected, neither *Flux* nor *Furtiue Hemorage* may be feared, dreſſe the Patient either with artificiall *Balme*, or *Oleum hipericonis cum gummis, & de Aperiſi, oleum Cattellorum*, or *Arceus Linament*, or one of theſe, and apply it warme, and ſomewhat warmer then the patient would willingly ſuffer it, and cover the wound with an Emp: of *Mellilot*, *Stipt: Paracelſi*, *Minium*, or any other according to art, namely, according to the temper of the griefe, with convenient bandage, I meane due legature, and ſo proceede in Gods name as in all contuſed wounds is moſt convenient to the end of the worke, I meane firſt to ſupperate and digeſt, then to mundifie them, then to incarne, and ſo on to ſigillate or ſiccatriſe with due reſpect, if occaſion be, to temper and fit the body by good regiment.

Tarry if you may vntill nature helpe.

Balme in the Cheſt.

Emplaſters fitting.

Order in Curing.

Onely in Gun-ſhot wounds almoſt in all dreſſings

the spirit of Wine doth well with some of the afore- Spirit of wine.
sayd *Balmes*, vntill the wound be well mundefied at the least.

But in wounds where great danger of *Gangrena* is Dressing of great wounds.
to be feared, the Surgion hath nothing more fast for the first dressing then *Vng: Ægipciacum*, and a little spirit of Wine, somewhat to warme, put in vpon soft lynt or fine towe, pledgents, or by a Serringe to be carried in at first into the bottom of the wound, which done, with some good astringent defensatiue medicine and fit bandage, let it be bound vp. And if the Surgion be not forced thereunto, let not the wound be opened againe vntill forty-eight houres be past.

Then at the next dressing, if *Flaxes* hinder not, Second dressing.
haue ready (if it may be) white Wine and Hony for a fomentation, or faire water and mell for necessitie if better cannot be had, and with a little *Aqua vitæ* added if you thinke fit, and with the Stupes very warme, foment the wounded part a prettie space. Then apply vnto the wound if the *Flax* be stayed one of the forenamed Balmes warme, or with the ordinary digestiue of *Terebinth, Vitellorum, Ovorum, &c.* And cover it with an Emp: and embrocate, the part about which *Ol: Rosarum, Camom: Anethi*: or the like, and binde it vp, and after dresse the wound but once a day without vrgent necessitie. But faile not to Time of dressing.
dresse it once every day and more, if the Surgion see cause. But I hold it fit, that the Surgion leaue off *Ol: hiperici* or *vnguentum*, for that it hath *Oleum Terebinth* therein, and may be too quicke: And rather vse *Ol-*

tens Linament, Oleum Catullorum, or ſome digeſtiue of your owne practice, vntill perfect digeſtion. And if accidents chance not, the Surgions methode may be to proceede as in all contuſed wounds. Onely let the Surgion make vſe of pure *Aqua vitæ*, or rather ſpirit of Wine, as is ſaid, with the *Egiptiacum*, where he findeth not a iuſt cauſe to the contrary.

Cautions, Adviſes, and Inſtructions for the younger ſort of Surgions in wounds of Gun-ſhott.

COnceale from the Patient the great danger of the wound, except iuſt cauſe vrge to acquaint him with it.

Fomentation. Fomentations are very good medicines in wounds with Gun-ſhott, but foment not at any time, except you can haue fire at hand, and let ever your fomentation be very warme applyed.

Foment not too long at any one time, neither vſe it but vpon vrgent occaſions.

Embracation. Embrocate often if no *Gangrena* be at hand, whether you haue fire or not.

Let all your Vehickes for your Medicines, as Tents, Dorſells, Plegents, &c. be ſoft and pleaſing to your patient, as much as may be, and crampne not the wound too full.

If you can come to the worke inlarge not, otherwiſe doe it warily, obſerving that you doe it not to thwart any member, neither any Veine, Artery, Nerue, or Muſcle. Inlarging of wounds.

No wound of Gun-ſhott can be ſaid to be a ſimple wound, neither ever was there any Artiſt that could truely ſay, that he healed any Gun-ſhott-wound by the firſt intenſion of vnition, without due ſupperation. For the compoſition of Gun-ſhott-wounds are ever reall, and very ſubſtantiall, witneſſe the poore patient, where Fibres, Nerues, Membrances, Veines, Arteries, *et quid non*, ſuffer together, ſo that ſuch wounds in their recency reſemble Vlcers rather then wounds. Gun-ſhott wounds ever compound.

And the difference of theſe from other contuſed wounds, is that other contuſed wounds for the moſt part ſuffer but by way of contuſion onely, and theſe by contuſion and delaceration, if not fraction of bones, &c. and thereby all the whole member ſuffereth together, and the parts adiacent in the higheſt degree. Difference of contuſed wounds.

If diſcolouring, bliſtering, or other apparant ſhewes of a *Gangrena* appeare, giue the patient a Diaphoreticke Cordiall, then ſcarifie gently at the firſt, and deeply afterwards, as cauſe ſhall vrge, and haue ready a *Lixivium*, made of water and aſhes, to the height of an ordinary ley, that Women vſe to driue Bucks with: And put a reaſonable quantitie of common Salt into it, and when it is cleered, if you haue hearbes, as Scordium, Wormewood, Centancy, Hipericon, Camomill, Mellilot, or the like, or *Lupines*, make vſe of them, according to Art, it will be much the better, if Beware a Gangrena.

not, vse it without, & apply it very warme with Stupes often shifted and wrong out: and if that cannot be had, vse Salt water rather then want a medicine. *Aqua vitæ* is also pretious in all *Lixiuums* against *Gangreanes*. But you may not boyle the *Aqua vitæ*, but put it in when you will vse your medicine. You may never in any case boyle *Aqua vitæ* without error; For the spirits will evaporate, and the vertue resteth in them.

Obserue in great lacerated wounds, as followeth, *viz.* If you finde by the wound that the one halfe of the member be taken away, there is no hope to saue on the rest. But you are rather to make present Amputation, for that the rest is contused, and must therefore admit, by consagument some losse of substance by suppuration, and then the remaining part can doe no seruice to the bodie, but will indanger the life of the patient, and be a hinderance. Nay, I dare say, if but halfe of any member be taken away, with the fracture of the bone, it is impossible to saue it on to doe service. If you haue *Hemoragie*, I meane bleeding or weeping of Veines or Arteries in your worke, search for that Veine or that Artery that bleedeth. If you cannot make legature, which seldome or never you can in Gun-shott-wounds, then apply to the end of the Veine an actuall Cautery, a small one will serue, but apply it very hott, and not all over the wound, onely to that Veine if you can which bleedeth; you may, if the *Fluxe* be not great, vse burning hott *Egyptiacum* vpon Lynt dipt and neately brought to the place, and then well boulstered. But a small actuall

Iust cause of Amputation.

Cautery is safer. Or the Surgion may vse strong re- Actuall Cau-
strictiue powder, adding thereunto burnt *Vitriol* a tery.
little, or burnt *Allum*, and *Precipitate* mixed maketh Restrictiue
a strong Esker: and often restraineth a great *Fluxe* ap- powder.
plyed thereon.

But take heede of an old received error of vnwise Obserue an
Practitioners, whose vse is to cramme the wound full old errour.
of *Bole*, or restringent powder, or some other stuffe, and then thrust in Plegeants, or Dorsells, into each corner of the wound, yea sometimes forgetting to take all out, yet thinking they haue done all workemenlike, not considering the harme that often ensueth thereby. I dare say, that in contused wounds of Gun-shott, they force and draw a *Gangrena*, if not death thereby, by burthening nature, by obstructing the parts, and grieving the patient. It is a safe and faire way at the first dressing ever to strive to ioyne together the parts of all inciſed wounds, and vnite the wounded parts, if it may be, with this cuation to order that fit breathing be left to evacuate the peccant humours, then to apply apt and fit astringent medicaments outwardly over all together, with apt and due ligature, and by that course to stay a *Fluxe*. But in contused and lacerated wounds of Gun-shott, the Surgion hath not that benefit, but must trust to other helpes not so readie, namely, as is said in the lesser wounds, to very warme Balmes, astringent, defensatiues, and good ligature, and in greater wounds to Caustieke Medicaments, Cauteries, and forcible helpes.

But in the Surgion his carefull desire to restraine A Caveat.

Fluxes,

Fluxes, let him ever beware of hard binding as much as is poſſible, which is alſo a common dangerous error, and certainely draweth on evill accidents, as *Flegmon, Gangrena, &c.*

Alſo on the other ſide, over-ſlacke binding is as bade; due, comely, and ſmooth ligature, with the due compoſing the parts wounded with ſoft and ſmooth boulſtering, greatly honoureth the Artiſt, and cureth the Patient almoſt as much as the medicine.

Obſerue alſo, that you put never one Cauſticke or Eſkaroticke Medicine after another too ſoone, namely, not vntill the firſt Eskar: hath beene gone at the leaſt three dayes. If in a contuſed wound of Gun-ſhott any ſlough or putrified part, as of the head, of the Muſcle and Artery, or Veine, or the like appeare in the wound, which needeth an Eſkaroticke Medicine. And the Surgion doe deſire to clenſe that part, ſtriue to vſe your Cauſticke Medicine, namely, your hott *Egiptiacum*, or a Cautery if you can apply it onely on that place, and not all over the wound.

Over-drying Medicines dangerous.

For you are to conſider, that as too much gleeting, weeping, or expence of humiditie from wounds of Gun-ſhott is dangerous many wayes; ſo too much vſe of drying Medicaments in wounds made with Gun-ſhott, is no leſſe dangerous by ſtopping the pores, repelling the peccant humors by reaſon of the conuſion collected, being choaked in the wound, aptly indanger a *Gangrena*, and all other deadly accidents incident thereunto.

Now

Now a word or two in want of the graue Phiſition, how the young Surgion may in part demeane himſelfe being put to it, for the more happy performance of the cures made with Gun-ſhot, which are very much regulated, by the gouerment of the Patient touching his Diet; as alſo in the carefull keeping his body in temper from much coſtiueneſſe; and alſo to ſtay inordinate fluxes, thereby to preuent accidents, as feauors, &c. And further alſo to meete with an helpe to cure euill accidents when they happen: to the effecting whereof good diet and other fitting helpes are to be wiſhed, might attend valiant men which fight for their countreys defence; which failing much with Souldiers, there the Surgions muſt take it as they can haue it, and make vſe in neceſſity of what the Surgions Cheſt affordeth: *viz.* if the Patient before his wound had not a looſe body, let the Surgion giue him a Suppoſitory or Gliſter, & if he ſeeme diſpoſed to a feauor though he hath bleed by his wound, yet if his ſtrength be anſwerable, open a veine on the contrary ſide of his griefe: but purge him not being wounded, without very iuſt cauſe, rather keepe him by gentle meanes, to haue the benefit of nature, either by Gliſter, or Suppoſitory. If he be diſtempered with heate, make him a Barley-water: *viz.* water two gallons, Barley ſix ounces, *Liquiriſe* one ounce, or iuyce of *Liquiriſe* two dragmes: boyle it gently a little, then caſt away the firſt waters, if water be plentifull, elſe not; and boyle it in freſh waters till one third part bee ſpent: and being boyled and clarified to the ſaid decoction, adde ſome few droppes of oyle of *Vitriol*, to make it ſomewhat ſowre in taſte, but not too much, but if to this ſix grains

Aduice touching the generall regiment of wounded men.

Diet.

Suppoſitory or Gliſter.

of *Confectio Alkermis*, with one ſpoonefull of *Roſewater* were added, the drinke would bee much the more gratefull in taſte, and more profitable. I conceiue it will bee needleſſe to vrge a courſe for a ſparing diet, for I feare glutony will not be their ſinne.

A vomite. But if fullneſſe of body be a hinderance, the Surgion hath meanes to euacuate, as for a vomit by *Stibium*, the infuſion of ſix or eight graines, if ſuch be fitting in able bodies by laxatiues; as *Conf. Hamech.* ſix dragmes for a doſe, *Diaphenicon* or *Diacatholicon* the doſe to an able body is a full ounce. The pills in the inuoyce of this Cheſt vpon their ſeuerall occaſions one dragme is a doſe of any one ſort of them; of *Pull. Sanctus* may be giuen two dragmes, of *Pull. Artheticus* one dragme. If *Cordialls* be required, the Surgion hath in his Cheſt to prouoke reſt in feauors, ſeuerall ones, as more particular; there is *Diaſcordium* which hee may giue to the full of two dragmes for a doſe, to a ſtrong body, either in wine or water as hee pleaſe, or in a bolus or lumpe of it ſelfe.

Pill.

Vſe of *Laudanum*. Alſo he hath *Laudanum*, which hee may ſafely giue three or foure graines to aſſwage paine in painefull wounds, to giue reſt in feauors, to ſtay fluxes, and in diuers other caſes, being vſed with iudgement, and prouided that the partie which taketh it bee not coſtiue: Likewiſe in fluxes of the belly often accompanied with crude nautiouſneſſe of the Stomake, as alſo againſt venemous or peſtelentiall infection of the bloud, there is in the Cheſt *Phyloniũ Perſicum*, of which the patient may take from one ſcruple to halfe a dragme, & to one dragme ſafely in a reaſonable body: & this is a ſafe medicine which cauſeth reſt, and corro-

borateth

borateth the ſtomake and mightily preuaileth to ſtay a fluxe of the belly, and doth alſo correct venemous and maligne humors, and is therefore very fit to bee vſed in fluxes that bee contagious or peſtelentiall, after ſome fitting euacuation if occaſion ſo be. What I here write it is of mine owne practice, you may take it on my word for truth, for you ſhall find it to be ſo, if with due caution you make right vſe of them. Theſe three cordials ſwage paine, (*viz. Diaſcordium, Laudanum* and *Phylonium*) or either coole or contemporate the blood. Cordials to ſwage paine.

The Surgions Cheſt containeth alſo diuers Cordiall medicines which may bee profitably adminiſtred each vpon due occaſion, *viz.* Of Cordials in generall.

Conf. Alkermis either giuen alone or to aromatize any purgatiue or Cordiall medicine from 4. grayns to a ſcrupell for a doſe.

Aqua Celeſtis, and *Cinnamon* water to refreſh the ſpirits, halfe a ſpoonefull, or one ſpoonefull for a doſe, and ſo of ſpirit of wine, and alſo *Aqua Vitæ* made of wine, which ſo much as it containeth of the ſpirit of wine, is, *quaſi ſpiritus vitæ.*

Alſo the Surgions Cheſt hath againſt contagion and the Plague *Mithridate, Ther. Londinenſis, Diateſſeron, Elec. de ouo*; as alſo *Diaſcordium, Conf. Alkermis*, and *Laudanum* mentioned; all theſe being proper for Peſtelentiall occaſions, the vſes and vertues of which I would touch, though but in a word: And for example, if the Surgions deſire a Cordiall to bee made to cauſe reſt, it is made either of *Laudanum* to 3. graynes as it is ſaid, or *Diaſcordium* to 2. dragmes, or *Philonium* to one dragme mentioned; & Note, that *Laudanum* Againſt the Plague, or infection of the Ayre. Nota.

num is beſt to be taken in a pill, becauſe of his vngrateſull taſte, and *Philonium* in a *bolus*, or lumpe for the like reaſon; and ſo alſo may *Diaſcordium* be vſed well, and eſpecially in War; where neither the aduiſe of the learned Phyſitian, nor the helpe of the Apothecaries ſhop is at hand; but if the Surgion be occaſioned, and that hee would haue *Diaſcordium* giuen in a Potion, then let him take of *Diaſcordium* 2 dragmes, of *White wine*, or faire Water 3. ounces or 4. of *Sir. Violarum* halfe an ounce. *Conf. Alkermis* 8. graines, *Oleum vitrioll gutt.* 4. and let the Patient incline himſelfe to reſt.

Cordials comfortiue.

Alſo if a Cordiall to comfort the ſpirits be required, then the foreſaid *Cinnamon water*, *Aqua Celeſtis*, or *Aqua vitæ*, of wine is at hand without mixture or addition, or with ſome addition, halfe a ſpooneſull or a ſpooneſull for a doſe.

A Cordiall *Diaphoreticon.*

If againſt malignitie of the bloud, or any Peſtilentiall Contagion feared; then the patient may take as followeth: *Re. Diateſſaron* 2. dragmes, *Mithridate* 1. dragme, *Elect. de ouo* halfe a dragme, deſolue or mix them together; and take it in White Wine, Clarret, or Sacke, or in Cardus, or faire water for need, of any of theſe to the quantity of 4. ounces, and ſweate thereupon, and if the Contagion be fierce, the patient may reiterate ſuch a ſweating medicine each 4. houres ſafely for three times. Theſe or any of theſe other Cordialls may be giuen in other waters, and other mixtures, according to the diſcretion of the Surgion, the time, place, and different occaſion conſidered, and for need in a bolus or lumpe: likewiſe *Mithridate*, or *Andromaches Treakel*, a drame or 2. drams in White Wine, in Cardus water, or in beere or water for a neede, may

ſafely

ſafely be taken for a Cordiall or in a bolus.

Alſo *Theriaca Diateſſaron*, three dragmes for a doſe, taken either as it is in a bolus or lumpe, to bee ſwallowed downe, is an excellent Cordiall to prouoke ſweat, to remoue Torſions, Stitches, or gripings of the ſtomacke, or lower belly, or any paynes therein; alſo it reſiſteth putrifactious and peſtilentiall vapours, and is the moſt antients Treacle of all other: my ſelfe haue had very much, true, and good experience of it, and would truſt my life vpon it, before the 2. aforeſaid *Alexifarmicks* and the Lond. Treacle, in the like manner is to be vſed and is a very good Cordiall. For torſions or gripings of the ſtomake or bowells.

El. de Ouo, is alſo of it ſelfe a ſure good Cordiall, a Scruple, I meane 20. graynes thereof in a bolus, or in wine giuen, it reſiſteth peſtilentiall venome, and refreſheth the ſpirits, and either alone, or as is aforeſaid mixed with other Cordiall Electuaries is alſo a true Cordiall: for it comforteth the heart, prouoketh ſweat, and by the poores of the skinne, expelleth poyſenous vapours. A Cordiall.

Conſ. roſarum, is vſed to refreſh and ſtrengthen the ſtomacke, either alone, or if you intend to coole and contemperate the bloud; adde a few droppes of oyle of *Vitriol* to a little thereof, and if to warme the ſtomacke, mixe *Mithridate*, or *Treacle* one part, and conſ. Roſes 2. parts, and giue it in a bolus. A contemperatiue Cordiall.

Conſ. Barbar. you ſhould keepe either to mixe with your cooling, barley waters, or Iulaps to refreſh the appetite, & the apalled ſpirits in feauors, or ſomtimes to giue a little of it in a bolus, to giue a reliſh to the mouth, to cauſe appetite in feauors and nauſious diſtempers. Of Cooling Iulaps.

There is alſo in the Cheſt *Oximell Simplex* which

I vſe in the Surgions Cheſt, in want of *Sir. Diamoron*, or rather being nothing inferiour for lotions in the mouth & throat orderly vſed, as alſo for the other vertues, it hath exceeding *Diamoron*, as namely outwardly in the aſſwaging tumors and paynes, this is a ſingular medicine, and alſo in *Hernia humoralis*, tumors of the teſticles, it excelleth, if it be mixed with a *Cathaplaſme* of beane meale, boyled in beere with a little oyle of *Elders* or Roſes, and a little wax, ſo that the whole quantity of the *Cathaplaſme* being by geſſe 2. pound, if ſo, then put about 6. or 7. ounces of *Oximell* thereunto, and boyle it to a body, and it is an admirable good medicine, for it diſcuſſeth, and ſafely repelleth ſuch tumors in their increaſe, with the helpe of *Phlybothomine* and a vomit where the patient is ſtrong, which tumors by error of the Surgion will otherwiſe come to ſupperation & proue fiſtulaes incurable, but he that will cure ſuch tumors, muſt haue an artificiall ſacke-truſſe, and bee ſure that the griefe bee truely and eaſily borne vp at all times of the whole cure: and *Oximell* inwardly adminiſtred, purgeth the ſtomacke and intrals, openeth obſtructions, and yet without any manifeſt ſigne of heate, and thereby helpeth much in feauours ingendred of groſſe Phlegme.

Vertue of *Oximell*.

Cure of *Hernia Himoralis*.

Of *Lotions* generally vſed in the Surgions Cheſt, the moſt common is of ſanatiue herbes made in the ſummer, with water or wine, and honey; but at Sea if a *lanatiue* or waſhing *Lotion*, in need bee required, faire water, with as much *allumne* therein, as will make it tart, & ſo much honey as wil giue it a gratefull taſte, & there is a *Lotion*: Or if in the diſeaſes of the Scurfie, a *Lotion* be required, then vſe *Coperas* inſteed of *allumne*, or ſome-

Lotion at Sea for a neede.

ſometimes *Vng. Ægyptiacum*, for vlcers of the mouth or throate, the greeued part touched hot may ſuffice.

And to waſh and coole the mouth in ſeauours, I often take faire water 4. ounces, of Roſe-water halfe a ſpoonefull, a little ſirrup, Sugar, or *mell* for a need, and a few drops of *Wine-vinegar* or *Oximell* a little, or oyle of *Vitriol* a few drops.

I haue beene taxed, that my proportion hath not ſufficient contained therein for wounds with Gun-ſhot, but if any pleaſe to looke into the particulars, and well conſider them, he will finde that the whole ſcope of the Surgions Cheſt, is of purpoſe contriued to that end, and that there is not any one medicine therein, but vpon the maine or vpon the by, tendeth that way; for a wound of Gun-ſhot at the firſt view, repreſenteth a wound, an vlcer, a fiſtula: Yea and ſometimes a fracture and a diſlocation, and by Accedents calleth to it a ſeauour, an impoſtume, a gangrenne, *& quid non*; yea without Gods mercy ioyned to the great care of the diſcreete Surgion, death followeth.

A true diſcription of a wound with Gun-ſhot at the firſt view.

Iudge then if ought be in a Surgions Cheſt, which in ſuch a wound vpon ſome occaſion be not fit.

And for an Inſtance, the Cheſt containeth, for the firſt intention curatiue of Burnings with Gun-powder. *Vng. Populeon.* 3. ℔ *Album.* 1. ℔ *Triapharmacon.* 2. ℔ *Diapompholigos*, ℔ ß. *Mellſaponis* 4. ℔ *oleum lini.* 4. ℔ *Ceruſe.* 3. ℔ *Mell-depurat.* 3. ℔ the weight of all this amounts vnto 20. ℔ and a halfe, being al directly fitting; for the firſt Intention, namely for taking out of the fire; and yet the Cheſt hath diuers other helpes as a *Linament* made of *Minium* or *Diacalſithios*, and oyle either

Medecines ready for the firſt intention curatiue of wounds by burnings of Gunpowder.

ther of *Linſeede oyle*, or of Roſes.

And for all the reſt as is ſaid of wounds of Gun-ſhot, ſo I ſay of *Vlcers* made by Gun-ſhot, the whole ſcope of all the *Sanatiue* medicines in the Cheſt, according to their ſeuerall intention and times ſute fitly to finiſh the cures, and wherein the reſt wanteth; there is a *Magazine* Cheſt, ſtored with the like medicines, to the valew of 48. ℔. to ſupplie each Surgions wants; but ſaith ſome others, the proportion is very much wanting of reſtrictiue or aſtringent medicines, to ſtay fluxes, or to *Amputate* vpon occaſion; wherefore to ſatisfie the beneuolent young Surgion deſirous to bee informed: I anſwer, firſt that there is *Pulueris Reſtring. Mainæ* 3. pounds, alſo Bolus 6. ℔. *Wine Viniger*, 2. ℔. *Myrrhæ* 4. ℥. *Alluminis* 2. ℔. *Vitrio. Crudæ*, 2. ℔. *Vitriol. Combuſtæ*, ℔ ß. *Mercurie. precipitat.* 2. ℥. *Sublimat.* 1. ℥. Beane and Barley meale 6 ℔. *Galles*, 1 ℔. *Pomgranat Rindes* 4. ℥. and whites of egges, beſides good ligature & boulſters ready, all which, with Iudgement and diſcretion vſed: I dare ſay are ſufficient. And for one inſtance, namely that the reſtrictiue powder is ſufficient in quantitie: I can produce witneſſe if need were, that vpon the 24. of *Iuly*, 1628. I tooke of 2. members, whereof one aboue the knee, with one 1. ℥ ß. of the powder to both, and had a fourth part to ſpare of the made medicine.

A Magazine Cheſt.

Aſtringent or reſtringent or Reſtrictiue medicine.

There is alſo an aſtringent defenſatiue powder prepared, and made readie for vſe as hereafter followeth.

And if all what is ſaid, (together with the ſupplie in the *Magazine* Cheſt, with alſo the helpe of *Phlebottomie ligature, actuall and potentiall Cauteries,*) wil not ſuffice; then I am I confeſſe miſtaken.

Nota.

Note in burnings with Gun-powder, that if the face

or

or hands be burned, I haue found it beſt from the firſt to the laſt, namely to the end of the cure, to vſe *Vng. Album*, either mixed with *Populeon* or with *Linſeed oyle*, or *Vnguentum Diapompholigos* is fully as good made into a very thinne liniment, and warme laid on the face, with a feather & no clouts at all, nor ought elſe to couer the face; this healeth excoriations or ſcorchings beſt: or that the Surgion take *Ceruſe* ground in a morter with *Linſeed oyle*, and apply it as the former; I haue approued it to be very good: *Triaphormicon* is alſo very good ſo vſed.

Common practiſe.

A note in the cure of burnings in the face.

I ſpake but now of hony for burnings, and who ſo ſhall proue it, ſhall finde it ſafe to take out the fire, and after to heale the griefe, but it is ſomewhat more painfull then ſome other medicines are, it being once or twice a day applyed vpon browne paper, being firſt rubbed ſoft, and the medicine ſpread thereon, and in that manner applyed, it healeth without any ſcarre.

Of hony.

Alſo *Mell Saponis*, and all other medicines apropriate, may be applied vpon paper at Sea, partly for ſparing Linnen.

Moreouer, I finde a great weakeneſſe in young Surgions, that I haue iuſt occaſion to queſtion, in that their Maſters that bred them, haue not taught them the true knowledge of our vſuall weights and meaſures, but chiefely they faile in the weights, which doth euen great danger to their poore patients, whoſe life hangeth dangerouſly in the ballance by a graine; too much giuen when the Surgion knoweth not how many graines are in a ſcruple, or in a dragme; no nor ſcarce that there is a waight ſo called; wherefore let young Surgions note as followeth: the Phyſitians, Surgions,

and Apothecaries haue two ſorts of weights in vſe, namely, *Troy* weights, which likewiſe are the Goldſmiths weights; and that containeth 12. ounces to the pound; and *Haberdepoys* weight, which containeth 16. ounces to the pound; and is, that common weight which the Grocers and all other trades-men vſe; and indeed which wee moſt vſe: for though my ſelfe ſometimes buy Muske, Ciuet, or Ambergreeſe & Drugges by *Troy* weight; yet I diſpenſe, and adminiſter all by *Haberdepoys* weight, which is 16. ounces to the pound, ſo I will onely for breuity ſpeake thereof:

A pound Haberdepoys, hath 16. ounces, an ounce hath 8. dragmes.

A dragme hath 3. ſcruples.

A ſcruple hath 20. graines, and by that account, a dragme hath 60. graines, and a full graine of barley is a reaſonable graine, and a pepper Corne or a wheate Corne may bee vſed.

Of Meaſures. And our Meaſures agreeing with our weights, moſt vſuall are as followeth; a wine gallon of water, containeth 8. pound, a pottle foure pound, a quarte 2. pound, a pinte 1. pound, &c. and of ordinarie ſallet oyles 7. pound and a halfe is accounted a gallon.

Of Cathaplaſmes.

OF all other neceſſaries in the Surgions Cheſt, I confeſſe my deficiencie therein, for I ought to haue had dryed hearbs of all ſorts fitting, ſome ſtore, but I pray you accept of my excuſe, I had Surgions Cheſts, and parts of Cheſts, 40. at once, and had but ten dayes reſpit to make and to fit them all, and yet the ſaid Cheſts containe hearbs of diuers ſorts, as alſo beane and barley meale, Lineſeeds, Fœnigreeke, Camomill-flowers, Cummen-ſeeds, Fennell-ſeeds, and diuers other things that are helpes that way, but what ſhall I ſay to ſome contentious perſons, my beſt things fall too ſhort for them? but to beneuolent vnderſtanding Artiſts, they can many wayes make vſe of fitting helpes in a ſhip, and not alwayes charge the Surgions Cheſt: *viz.* If my ſelfe were at ſea, and put to it, I would find waſte crummes of biskets, and I would boyle them in ſhip-beere, and with ſome fat of the beefe-kettle, or of the porke-kettle, I would make vp a ſupperatiue Cathaplaſme and if it had not a fit conſiſtance or body, I would deale with the Steward for a little meale, or take of my owne ſtore, and according to my ſtore, inrich that with other helpes from the Cheſt.

If a Surgion be put to it.

And if I neede a diſcutient Cathaplaſme, and the Cheſt had not to helpe mee to my will being put to it, I would as I ſaid make my ground of the medicine to bee of crummes of bisket or of ſoft bread decocted in beere, adding when it had well ſod, viniger and hony a fit quantitie, theſe things with other rationall additi-

ons according to ſeuerall occaſions doe much comfort the weake patient and alſo grace the Artiſt: *Nam fruſtra fit per plura, quod fieri poteſt per pauciora.* And to put young Surgions in minde what other ſupperatiue medicines are in the Surgions Cheſt, there are either Vnguents, Oyles, or Emplaſticke medicaments, (diuers) which my time will not admit me to informe you off, though I confeſſe I ſhould aduiſe young men in their neceſſities, but to bee ſhort, they ſhall finde *Vnguentum Bazillicon* ſpread thicke and applied to an Apoſteme doth wel, and the better if the place Embrocated with ſome *Oleum Lili. Lini.* or the like, and you ſhall finde that *Arceus Linament* is good: and likewiſe *Emplaſtrum Mellilote*, and who knoweth not that ſhippe-pitch and a little fat mixed, ripeneth a Tumor duely applyed, or *Pix Græca* with fat, or *Turpentine* and diuers other the like good things may bee found, where the diſcreet Surgion is put to his ſhifts: but no more of that, for whereas Bees may ſucke hony, enen there Spiders will conuert a plaine ſtile into poyſon and gall.

Of Supperatiue medicines

Non omnibus dormio.

A readie defenſatiue powder to bee applyed where iuſt cauſe is for a defenſatiue; either for wounds with gunſhot or other wounds which I haue long made vſe of, and will impart the ſecret to young practitioners as followeth.

Rcs. *Terra*

℞. *Terræ Sigillatæ.*
Aluminis.
Vitrioli.
Tartari.
Ceruſſæ ana 1. ℔.
Boli Armeni 2. ℔.
Aquæ 1. ℔ ß.

Take a new earthen pot of almoſt a gallon and an halfe, put the water into the pot, and thereunto at the firſt put the Allom and the Copperas, then powder the *Tarter* and put that in alſo, and then haue ready the other ingrediences in powder, put them in by little and little, ſtirring them very well vntill all be incorporated, and without ſeething, keepe the medicine on the fire till it be hard, and if you cannot make it hard enough in that manner ſo that being cold it will powder, then put it into ſome dripping panne or the like, and into an ouen when the bread is drawne and it will be hard: then being cold powder it, and keepe it to your vſe; it will not decay nor alter his vertue in many yeeres.

And when you would vſe it for a defenſatiue, take of this powder about halfe an ounce, of *Peſca*, I meane water and vineger mixed foure ounces, put the powder therein, which wil almoſt al melt, then dippe clouts therein and apply them.

This medicine with moderation vſed is a true and excellent defenſatiue and very Anodine.

Alſo it healeth all Itchings, Smartings, gaulings, or

any Erisiphilas, or other Excoriations speedily, and safely and mightily preuenteth accidents either in great wounds or fractures, and being in small quantity vsed with faire water to bathe vlcers, it cleanseth them well and healeth them.

And if you haue whites of egges mixed with *Pesce* it were the better, or in fractures with yelks and whites together it is very good, onely let the care of the Surgion bee that he apply it in his true nature, namely as a defensatiue in fit time, and so touching the rest of the vses thereof, and hee may presume he hath a sure good medicine, and so for this time I take my leaue.

FINIS.

THE ANALYSIS OF CHYRVRGERY,

Being the Theorique and Practique part thereof.

Briefly composed for the benefit of all those who desire the knowledge of this worthy Profession.

BY

The paines and industry of *Ed: Edwards* Doctor in *Physicke*.

549. F. 24
4
N. 1595
K.

LONDON,
Printed by *Thomas Harper*.
1636.